

Recovery Act Funding  
For  
Louisiana Clean Diesel Grant Program  
Project Work Plan and Budget Narrative



State of Louisiana  
Department of Environmental Quality

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# **Recovery Act Funding for Louisiana Clean Diesel Grant Program**

## **Project Manager and Contact Information**

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## **Project Budget**

EPA allocation	\$1,730,000
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## **Project Period**

All work plans for the Recovery Act Funding for the Louisiana Clean Diesel Grant Program will run from the date of award through September 30, 2010.

## **Summary Statement**

The LDEQ will award competitive grants from the Recovery Act Funding for Louisiana Clean Diesel Grant Program for projects that maximize the benefits to public health, create and/or sustain existing jobs, and reduce diesel emissions in Louisiana. Awarded grants will achieve diesel emissions reductions by retrofitting, upgrading, replacement, or reduced idling from on-road and off-road diesel engines and equipment. All projects shall use EPA or California Air Resource Board (CARB) Verified Technologies.

## **Scope of Work**

### **Project Description**

Diesel engine emissions pose significant health concerns especially for the most vulnerable population: children, elderly, and people with respiratory ailments. Diesel engine emissions are high in concentrations of toxic air pollutants such as particulate matter (PM), nitrogen oxides (NO<sub>x</sub>), carbon monoxide (CO), and volatile organic compounds (VOC).

The goal of the Louisiana Clean Diesel Grant Program will be to maximize the reduction of diesel engine emissions from on-road and off-road diesel vehicles and equipment while creating and sustaining related jobs in the state of Louisiana.

## **Program Priorities**

Projects funding for diesel emissions reduction grants from eligible diesel equipment and verified reduction technologies will be consistent with the Program's priorities in achieving the goals listed below:

- Public and non-profit organization.
- Maximize public health benefits.
- Are the most cost-effective.
- Create and/or sustain Louisiana jobs
- Serve areas with the highest population densities or are in poor air quality areas such as ozone non-attainment and maintenance areas.
- Serve areas with a high concentration of air pollution from diesel engine fleets, including high traffic corridors, ports, rail yards, truck stops, and distribution centers.
- Maximize the useful life of any certified engine configuration or verified technology.
- Conserve diesel fuels or use ultra low sulfur diesel (15 ppm of sulfur content) in off-road diesel engines.

The LDEQ will ensure that, per the Recovery Act, grant activities preserve and/or create jobs and promote economic recovery. The LDEQ will also commence expenditures and activities as quickly as possible consistent with prudent management when implementing this grant and/or loan program.

The LDEQ Program understands that all proposals must support Goal 1 of EPA's 2006-2011 Strategic Plan, Clean Air and Global Climate Change; Objective 1.1: Healthier Outdoor Air, which states, "Through 2011...[EPA will]...protect human health and the environment by attaining and maintaining health-based air-quality standards and reducing the risk from toxic air pollutants."

## **Eligible Diesel Fleets, Diesel Equipment, and Activities**

- School Buses and Public Transportation Buses
- Heavy and Medium duty diesel engine trucks
- Locomotive and Marine diesel engines
- Off-road construction equipment
- Cargo Handling, Mining, and Energy Production

## **Reporting**

The LDEQ understands that progress reporting will at least be quarterly and that additional reporting may be required for these special Recovery Act grants.

## **Technologies Options**

The diesel emission reduction technologies options in the Louisiana Program shall be EPA or CARB verified. These include retrofit and idling reduction technologies, engine upgrades, engine replacement, equipment replacement, and cleaner fuel use. A description of the technologies options follows below:

**Retrofit Technology:** A retrofit project is defined broadly to include any technology, device, fuel

or system that when applied to an existing diesel engine achieves emission reductions beyond that currently required by EPA regulations at the time of the engine's certification. Retrofit technologies may include, but are not limited to, control technologies that are installed in the exhaust system such as oxidation catalysts and particulate matter filters or systems that include crankcase control, like a closed crankcase filtration system, and engine recalibrations. To be eligible for funding, the retrofit must be verified by EPA or CARB. Please refer to the internet links listed below for more information on EPA and CARB verified technologies. LDEQ will provide funding assistance for up to 100% for retrofits.

**Idling Reduction:** An idle reduction project is defined as the installation of a technology or device that (1) is designed to provide services (such as heat, air conditioning and/or electricity) to vehicles and equipment that would otherwise require the operation of the main drive engine while the vehicle is temporarily parked or remains stationary, and (2) reduces unnecessary idling of such vehicles or equipment. The reduction in idling must also lower emissions. EPA has verified four categories of idle reduction technologies: (1) auxiliary power units and generator sets; (2) battery air conditioning systems and thermal storage systems; (3) electrified parking spaces (truck stop electrification); (4) fuel operated heaters. Please refer to the internet links listed below for more information on EPA and CARB verified technologies. LDEQ will provide funding assistance for up to 100% for idling reduction technology.

**Engine Upgrade:** Some engines may be able to be upgraded to reduce their emissions by applying manufacturer recommended upgrades or kits to certified or verified configurations. Please note that the upgrade must be with a manufacturer's kit listed in CARB or EPA's verified lists (see internet links listed below), or an EPA certified configuration. The upgraded engine must be certified to emit 25 percent less NO<sub>x</sub> than the original engine, based on the federal Standard for that engine. LDEQ will provide funding assistance for up to 100% for engine upgrades.

**Engine Replacement:** Engine replacement refers to the removal of an existing engine and its replacement with a newer or cleaner engine that meets a more stringent set of engine emissions standards. Engine replacements may include replacement for the use with a cleaner fuel such as compressed natural gas, recalibrations and/or other components and/or the addition of newer, cleaner technologies to reduce the emissions from the engines. The engine must be certified to emit 25 percent less NO<sub>x</sub> than the engine being replaced, based on the federal standard for that engine. Engine replacements are eligible for funding on the condition that the following criteria are satisfied:

- The replacement engine will perform the same function as the engine that is being replaced; and
- The replacement engine will be of the similar horsepower as the engine being replaced.

LDEQ requires that the engine being replaced must be scrapped, remanufactured by an original engine manufacturer to a cleaner emission standard or rendered permanently disabled. Awardees may drill a three inch hole in or otherwise destroying the engine block, while retaining possession of the engine. Other methods may be considered. The disposition of the original engine must take place within 60 days of receiving funding from LDEQ, and evidence of appropriate disposal will be required. If you are awarded with funding assistance to replace an engine, you will be required to provide information regarding the disposition activities and, if applicable, identify (name, address and phone number) the company that will scrap the engine. Photographs are one form of acceptable evidence as long as the photographs depict the engine BEFORE and AFTER destroying or rendering it inoperable. Awardees will be required to return

funds if they fail to meet the disposition requirements. LDEQ will provide funding assistance for up to 50% for engine replacements.

**Equipment Replacement:** Replacement projects can include the replacement of diesel vehicles and equipment with newer, cleaner diesel or hybrid or alternative fuel vehicles/equipment. LDEQ encourages the replacement of older vehicles and equipment containing engines that were manufactured prior to the implementation of emissions standards.

Equipment replacements are eligible for funding on the condition that the following criteria are satisfied:

1. The applicant must have owned the vehicle/equipment for a minimum of two years immediately preceding the funding assistance proposal;
2. The vehicle/equipment must have been registered (if used on-road) and used in Louisiana for the preceding two years, unless otherwise approved by LDEQ;
3. The replacement vehicle/equipment will perform the same function as the vehicle/equipment that is being replaced (i.e. an excavator used to dig pipelines would be replaced by an excavator that continues to dig pipelines);
4. The replacement vehicle/equipment will be of the same type and similar gross vehicle class or horsepower as the vehicle/equipment being replaced (i.e. 300 horsepower bulldozer is replaced by a bulldozer of similar horsepower);
5. The vehicle/equipment being replaced must be operational; and
6. The vehicle/equipment being replaced will be scrapped.

The replacement equipment must be certified to emit at least 25 percent less NO<sub>x</sub> than the equipment being replaced. The baseline for comparison of emissions is the difference between the emissions of the equipment being replaced and the emissions of the equipment being purchased.

The applicant must agree to destroy the old vehicle/equipment (including the engine) within 60 days of receiving funding assistance by LDEQ, and evidence of appropriate disposal is required. Awardees may also drill a three inch hole in or otherwise destroying the engine block, while retaining possession of the engine, and cutting the frame rails or structural components in a wedge at least 75% of the way through (or perform other structural damage to the equipment) rendering it inoperable. Other methods may be considered. If you are awarded with funding assistance to replace a vehicle or piece of equipment, you will be required to provide information regarding the scrappage activities and, if applicable, identify (name, address and phone number) the company that will scrap the equipment and engine. One form of acceptable evidence for on-road vehicles may be providing a history report from the Department of Motor Vehicles that shows the vehicle has been scrapped. Photographs are another form of acceptable evidence as long as the photographs depict the engine BEFORE and AFTER destroying/rendering it inoperable. Awardees will be required to return funds if they fail to meet the disposition requirements. LDEQ will provide funding assistance for up to 50% for school bus replacement that meet 2010 emissions standards and for up to 25% for all other equipment replacements.

**Cleaner Fuels Use:** Cleaner fuels include, but are not limited to, ultra-low sulfur diesel fuel (for non-road vehicles/engines manufactured prior to EPA's mandate), biodiesel, diesel emulsions or additives verified by EPA or CARB, compressed natural gas and other alternative fuels. Funding available under this program may be used to cover the cost differential between the cleaner fuel and conventional diesel fuel. Note: This funding may not be used for fueling infrastructure, such as that used for the production and/or distribution of fuels.

A current list of EPA verified technologies is available at <http://www.epa.gov/otaq/retrofit/verif-list.htm> .

A current list of EPA verified idle reduction technologies is available at <http://www.epa.gov/otaq/diesel/idle-ncdc.htm#eps> .

A current list of CARB verified technologies is available at <http://www.arb.ca.gov/diesel/verdev/vt/cvt.htm> .

Also, please visit the EPA's Diesel Emissions Quantifier for more information on reducing diesel emissions at

<http://cfpub.epa.gov/quantifier/view/index.cfm> .

NOTE: New emission standards in the highway sector took affect in 2007 and will affect future model year highway heavy-duty vehicles and engines. For non-road engines, new EPA standards will be phased in starting in 2008. Emission reductions from retrofits of post-2007 and post-2008 vehicles, engines and equipment will be considered, if the technologies, devices or systems proposed in the funding assistance proposal achieve emissions reductions beyond that required by EPA regulation at the time of engine certification.

### **Timeline**

<b>Activity</b>	<b>Time Period</b>
Request for Proposals	Within thirty days of EPA funding award
Evaluation Period	Thirty days
Implementing and Monitoring	10 - 12 months
Periodic Reporting	Monthly on last business day
Final Payments	Within 30 days after completion, no later than September 1, 2010
Final Evaluation	Within 30 days after completion

### **Administrative Activities**

The LDEQ anticipates the following administrative costs:

- Costs related to printing of brochures or educational materials
- Costs related to publishing of bids requests
- Costs related to project oversight and administration

## **BUDGET NARRATIVE**

### **Project Budget**

The anticipated budget for the Recovery Act Funding for Louisiana Clean Diesel Grant Program (in addition to Standard Form 424A) is listed in the table below:

<b>Budget Category</b>	<b>EPA Allocation</b>
1. Personnel	\$50,000
2. Fringe Benefits	\$18,500
3. Travel	\$2,500
4. Supplies	N/A
5. Equipment	N/A
6. Contractual	N/A
7. Other	\$1,613,865
<b>Total Direct Charges</b>	<b>\$1,684,865</b>
8. Indirect Charges	\$45,135
<b>Grand Total</b>	<b>\$1,730,000</b>

### **Explanation of Budget**

1. Personnel

<b>Category</b>	<b>EPA</b>
Project Manager (.3 FTE)	\$15,000
Project Assistants (.7FTE)	\$35,000

2. Fringe Benefits

<b>Category</b>	<b>EPA</b>
1 FTE	\$18,500

3. Travel

<b>Category</b>	<b>EPA</b>
Site visits	\$2,500

4. Other

<b>Category</b>	<b>EPA</b>
Louisiana Clean Diesel Sub-Grant Funding	\$1,613,865

8. Indirect Charges

<b>Category</b>	<b>EPA</b>
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Louisiana DEQ has an approved indirect cost rate of 65.89% for 2010	\$45,135
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## **SIGNATURES**

This work plan and detailed budget narrative must be signed and dated by the Authorized Representative signing the SF-424 form.

If your organization has the capability to sign the application with a digital or electronic signature, this will be accepted.

## **APPENDIX**

### **Resources**

States may wish to consult the CFR and OMB circulars as referenced in the Federal Register Notice. Links to these references are:

40 CFR 31: <http://www.gpoaccess.gov/cfr/index.html>

OMB Circular A-87: <http://www.whitehouse.gov/omb/circulars/index.html>

More information is available on EPA's web site at  
<http://www.epa.gov/otaq/eparecovery/progstate.htm>